

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

6 MAR 1944

Date of writing Report 2/3/1944 When handed in at Local Office 3/3/1944 Port of WEST HARTLEPOOL  
 No. in Survey held at WEST HARTLEPOOL Date, First Survey 13th August 1942 Last Survey 29th February 1944  
 Reg. Book IN 503 (Number of Visits 55)  
 on the STEEL SCREW STEAMER "EMPIRE SEDLEY" Tons {Gross 2905.45  
 {Net 1640.70  
 Built at WEST HARTLEPOOL By whom built WM. GRAY & CO. LTD Yard No. 1163 When built 1944  
 Engines made at WEST HARTLEPOOL By whom made CENTRAL MARINE ENG WORKS Engine No. 1163 When made 1944  
 Boilers made at WEST HARTLEPOOL By whom made CENTRAL MARINE ENG WORKS Boiler No. 1163 When made 1944  
 Registered Horse Power \_\_\_\_\_ Owners MINISTRY OF WAR TRANSPORT Port belonging to WEST HARTLEPOOL  
 Nom. Horse Power as per Rule 281 ✓ Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes  
 Trade for which vessel is intended OCEAN GOING

ENGINES, &c.—Description of Engines INVERTED TRIPLE EXPANSION Revs. per minute 72 ✓  
 Dia. of Cylinders 20 x 31 x 55 ✓ Length of Stroke 39 ✓ No. of Cylinders 3 ✓ No. of Cranks 3 ✓  
 Crank shaft, dia. of journals as per Rule 11.0 ✓ as fitted 11 1/4 ✓ Crank pin dia. 11 1/4 ✓ Crank webs Mid. length breadth 16 ✓ Thickness parallel to axis 6 3/8 ✓  
 as per Rule 10.47 ✓ as fitted 10 3/4 ✓ Thrust shaft, diameter at collars as per Rule 11.0 ✓ as fitted 11 ✓  
 Tube Shafts, diameter as per Rule - as fitted - Screw Shaft, diameter as per Rule 11.78 ✓ as fitted 12 1/4 ✓ Is the {tube screw} shaft fitted with a continuous liner { Yes ✓  
 Bronze Liners, thickness in way of bushes as per Rule .657 ✓ as fitted 1/16 ✓ Thickness between bushes as per Rule .492 ✓ as fitted 1/32 ✓ Is the after end of the liner made watertight in the propeller boss Yes ✓ If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner One length ✓  
 If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive -  
 If two liners are fitted, is the shaft lapped or protected between the liners - Is an approved Oil Gland or other appliance fitted at the after end of the tube at NO ✓ If so, state type - Length of Bearing in Stern Bush next to and supporting propeller 4' 3 3/8 ✓  
 Propeller, dia. 15' 9 ✓ Pitch 14' 9 ✓ No. of Blades 4 ✓ Material Cast Iron whether Moveable NO Total Developed Surface 75 sq. feet  
 Feed Pumps worked from the Main Engines, No. 2 ✓ Diameter 3 ✓ Stroke 26 ✓ Can one be overhauled while the other is at work Yes ✓  
 Bilge Pumps worked from the Main Engines, No. 2 ✓ Diameter 4 1/4 ✓ Stroke 26 ✓ Can one be overhauled while the other is at work Yes ✓  
 Feed Pumps { No. and size 2 @ 3" x 26" / 2 @ 8" x 15" SINGLE Pumps connected to the { No. and size 2 @ 4 1/4" x 26" / 1 @ 10" x 11" x 10" DUPLEX  
 { How driven MAIN ENGINE INDEPENDENT STEAM Main Bilge Line { How driven MAIN ENGINES INDEPENDENT STEAM  
 Ballast Pumps, No. and size 1 @ 10" x 11" x 10" DUPLEX Lubricating Oil Pumps, including Spare Pump, No. and size \_\_\_\_\_  
 Are two independent means arranged for circulating water through the Oil Cooler - Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps:—In Engine and Boiler Room 5 @ 3" / 1 @ 4" ✓  
 In Pump Room - In Holds, &c. Nº 1 2 @ 3" Nº 2 2 @ 3" BOILER ROOM 2 @ 3" ENGRM. 3 @ 3" Nº 3 4 @ 2 1/2" TUNNEL WELL 1 @ 2 1/2" ✓  
 Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 6" ✓ Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 @ 4" ✓ Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Yes ✓  
 Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes ✓  
 Are all Sea Connections fitted direct on the skin of the ship On reservoir ✓ Are they fitted with Valves or Cocks Both ✓  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes ✓ Are the Overboard Discharges above or below the deep water line Below ✓  
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Yes ✓ Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes ✓  
 What Pipes pass through the bunkers None How are they protected -  
 What pipes pass through the deep tanks - Have they been tested as per Rule -  
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes ✓  
 Is the arrangement of Valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another Yes ✓ Is the Shaft Tunnel watertight Yes ✓ Is it fitted with a watertight door NO worked from -

MAIN BOILERS, &c.—(Letter for record 3 ✓) Total Heating Surface of Boilers 21147 ✓  
 Which Boilers are fitted with Forced Draft Both ✓ Which Boilers are fitted with Superheaters Neither ✓  
 No. and Description of Boilers 2 Single ended multitubular Working Pressure 200 lbs ✓  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes ✓  
 IS A DONKEY BOILER FITTED? NO ✓ If so, is a report now forwarded? -  
 Can the donkey boiler be used for domestic purposes only -  
 PLANS. Are approved plans forwarded herewith for Shafting 2-10-40 Main Boilers 24-9-42 Auxiliary Boilers - Donkey Boilers -  
 (If not state date of approval) 29-10-40  
 Superheaters \_\_\_\_\_ General Pumping Arrangements \_\_\_\_\_ Oil fuel Burning Piping Arrangements \_\_\_\_\_

## SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes ✓  
 State the principal additional spare gear supplied \_\_\_\_\_

The foregoing is a correct description  
 FOR THE CENTRAL MARINE ENGINE WORKS

(W. Gray & Co. Ltd)

*J.H. Gray*  
 GENERAL MANAGER

Manufacturer.



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Lloyd's Register Foundation  
 015026-016038-0218

Dates of Survey while building

During progress of work in shops -- 1943 - Aug 13, Sept 24, Oct 4, 6, 19, 23, 26, 28, 30, Nov 1, 3, 5, 9, 10, 11, 12, 15, 16, 18, 19, 24, 25, 29, 30, Dec 1, 2, 6, 8, 10, 17, 30, 21, 28 - 1944, Jan 5, 6, 15, 17, 19, 21.

During erection on board vessel --- 1943, Nov 19, 26, Dec 9, 13, 17, 22, 30 - 1944, Jan 12, 20, 25, Feb 9, 15, 16, 20, 23, 29.

Total No. of visits 55

Dates of Examination of principal parts - Cylinders 6-10-43 - 11-11-43. Slides 11-11-43. Covers 11-11-43.

Pistons 11-11-43. Piston Rods 11-11-43. Connecting rods 11-11-43.

Crank shaft 26-10-43 - 16-11-43. Thrust shaft 2-12-43 - 8-12-43. Intermediate shafts 24-11-43 - 10-12-43.

Tube shaft. Screw shaft 24-11-43 - 10-12-43. Propeller 10-12-43.

Stern tube 10-12-43. Engine and boiler seatings 26-11-43. Engines holding down bolts 12-1-44.

Completion of fitting sea connections 26-11-43.

Completion of pumping arrangements 15-2-44. Boilers fixed 12-1-44. Engines tried under steam 15-2-44.

Main boiler safety valves adjusted 15-2-44. Thickness of adjusting washers 2 1/4", 1 1/2", 1 1/2", 1 1/2".

Crank shaft material 1 1/2" HGT STEEL. Identification Mark N° 1591 CP. Thrust shaft material 1 1/2" HGT STEEL. Identification Mark N° 1746 CP.

Intermediate shafts, material 1 1/2" HGT STEEL. Identification Marks 1748, 1749. Tube shaft, material. Identification Mark.

Screw shaft, material 1 1/2" HGT STEEL. Identification Mark N° 1747. Steam Pipes, material SP STEEL. Test pressure 600 lbs. Date of Test 14-1-44.

Is an installation fitted for burning oil fuel. No. Is the flash point of the oil to be used over 150° F. -

Have the requirements of the Rules for the use of oil as fuel been complied with. -

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo. No. If so, have the requirements of the Rules been complied with. -

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with. -

Is this machinery duplicate of a previous case. Yes. If so, state name of vessel S.S. EM. HARCOURT, RAT N° 18510.

General Remarks (State quality of workmanship, opinions as to class, &c. The engines & boilers of this vessel have been built under special survey and in accordance with the approved plans and specification. The workmanship and materials have been found good. Upon completion they were examined under full working conditions and found satisfactory. It is recommended that the machinery of this vessel be classed in the Register Book of L.M.C. 2.44. 2.5B F.D.C. Note. Basic Bessemer steel tubes. All auxiliary steam pipes to be submitted for examination after 4 years.

The amount of Entry Fee	£ 4 : 0	When applied for, 3/3/1944
Special	£ 67 : 3	
SUPERVISION. Donkey Boiler Fee	£ 16 : 16	When received,
Travelling Expenses (if any)	£ :	19

Arthur W. Oxford  
Engineer Surveyor to Lloyd's Register of Shipping.

THURS 9 MAR 1944

Committee's Minute  
Assigned + LME 2.44

Certificate to be sent to (The Surveyors are requested not to write on or below the space for Committee's Minute.)

